

ABSTRACT OF THE DISCLOSURE

The invention relates to a method for estimating a delay of a signal received at a mobile station MS from a specific  
5 network element  $BS_1$ ,  $BS_2$  of a network for determining the location of the mobile station. In order to reduce the false alarm ratio and to increase the acquisition probability, it is proposed that the method comprises estimating the delay within a search window. The search window is determined  
10 based on location information available for the specific network element  $BS_1$ ,  $BS_2$  and on a known distance of the mobile station MS to at least one other network element  $BS_0$ ,  $BS_1$ . The invention relates equally to a corresponding mobile station MS, to a corresponding network element  $BS_0$ , and to a  
15 communication system comprising at least one mobile station and at least two network elements.

**For publication: Figure 4**